

1. PURPOSE AND NEED

1.1 INTRODUCTION AND REGIONAL SETTING

BP America Production Company (BP) is representing itself and more than 20 other Operators (collectively referred to as the “Operators”) in a proposal to the U.S. Department of the Interior (USDI) Bureau of Land Management (BLM) Rawlins Field Office (RFO) to expand development of natural gas and condensate resources within an area the BLM has designated the Continental Divide-Creston (CD-C) Natural Gas Development Project. The project area consists of approximately 1.1 million acres (1,672 square miles) located in Townships 14 through 24 North, Ranges 91 through 98 West, Sixth Principal Meridian, Carbon and Sweetwater counties (**Map 1-1**).

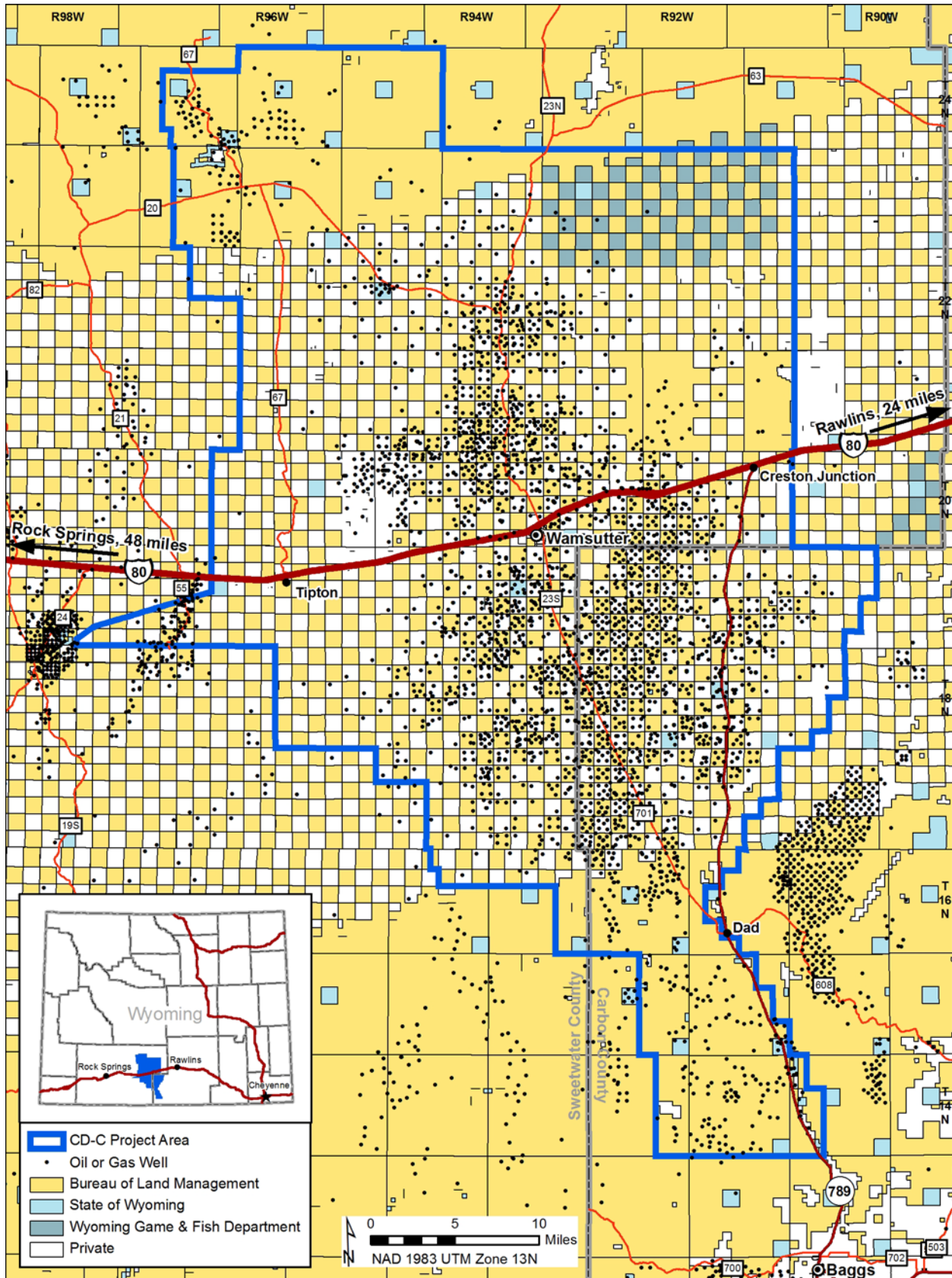
The CD-C project lies within a region that has seen ongoing oil and gas exploration and development since the 1940’s. For over 30 years, oil and gas in the region has been an important element of the local economy. Through 2014, thousands of wells had been drilled in the region, over 4,700 within the CD-C project area. Multiple oil and gas development projects have preceded the CD-C project, either within, overlapping, or adjacent to the CD-C project area. A partial listing includes the Continental Divide/Wamsutter II, Atlantic Rim, Desolation Flats, Hay Reservoir, Pacific Rim, Patrick Draw, South Baggs, Mulligan Draw, Table Rock, and Luman Rim projects. Two projects directly preceded the currently proposed CD-C project: the Creston/Blue Gap project and the Continental Divide/Wamsutter II project. The proposed CD-C project area consists largely of lands included in those projects, and those projects are discussed in greater detail in **Section 1.3** and are depicted on **Map 1.2**.

In 2005, federal leaseholders operating in the Creston/Blue Gap and the Continental Divide/Wamsutter II EIS areas proposed two separate natural gas infill projects to the RFO. These projects were considered infill because they proposed to more completely develop areas that had already been explored and partially developed.

In April 2005, Devon Energy Corporation and other federal leaseholders proposed to drill an additional 1,250 natural gas wells in the Creston/Blue Gap project area. A total of 275 wells had been approved in the Record of Decision (ROD) for the Creston/Blue Gap Environmental Impact Statement (EIS) (BLM 1994), and development in the area was reaching this limit. The 2005 Devon proposal was initiated as the Creston/Blue Gap II Natural Gas Project.

In November 2005, BP and other federal leaseholders proposed to drill up to 7,700 additional infill natural gas wells within the Continental Divide/Wamsutter II project area, known as the Continental Divide Natural Gas Project. The ROD for the Continental Divide/Wamsutter II EIS had approved up to 3,000 wells (BLM 2000) and the Operators were reaching the approved level of development. After reviewing both the Continental Divide and Creston/Blue Gap II proposals, and considering their concurrent timing, their proximity, and the similarity of the proposed actions, the BLM determined that the two projects should be combined into one infill project with up to 8,950 wells (the 1,250 wells from the Devon proposal in addition to the 7,700 wells from the BP proposal) and called it the Continental Divide-Creston Natural Gas Development Project. The 8,950 proposed wells would be in addition to the existing 4,700 wells already drilled within the project area, over 3,900 of which are still producing (shown on **Map 1-1**).

CHAPTER 1— PURPOSE AND NEED



Map 1-1. Project boundary and existing oil and gas development

No warranty is made by the BLM for use of the data for purposes not intended by the BLM.

The eastern boundary of the CD-C project area is approximately 25 miles west of the city of Rawlins; the western boundary is roughly 50 miles east of the city of Rock Springs. Interstate 80 (I-80) generally bisects the project area. The checkerboard¹ pattern of land ownership in the central portion of the project area is a result of early land grants from the federal government to the Union Pacific Railroad Company.

The BLM, state, and private persons and/or entities have ownership of the minerals within the checkerboard. The RFO manages BLM surface lands and the federal mineral estate in the project area. The BLM manages approximately 626,932 surface acres (58.6 percent), the State of Wyoming owns approximately 48,684 acres (4.5 percent), and private landowners own approximately 394,470 acres (36.9 percent), as shown on **Map 1-1**. The map also shows existing wells to date within and adjacent to the project area. **Table 1-1** describes both the surface and mineral ownership within the project area.

Table 1-1. Estimated surface and mineral ownership in the CD-C project area

Ownership	Surface	% of Project Area	Mineral	% of Project Area
ACRES				
Federal	626,932	58.6	584,689	54.6
Wyoming	48,684	4.5	61,560	5.8
Fee	394,470	36.9	423,837	39.6
Total	1,070,086	100.0	1,070,086	100.0
SQUARE MILES				
Federal	980	58.6	914	54.6
Wyoming	76	4.5	96	5.8
Fee	616	36.9	662	39.6
Total	1,672	100.0	1,672	100.0

The BLM has prepared this Environmental Impact Statement (EIS) to analyze the effects of the project's proposed infill drilling and field development in compliance with the National Environmental Policy Act of 1969 (as amended) (NEPA) (42 United States Code [U.S.C.] 4321 *et seq.*) and the Council on Environmental Quality (CEQ) regulations. This EIS describes the direct, indirect, and cumulative impacts of authorizing additional natural gas development in the CD-C project area.

The State of Wyoming is a Cooperating Agency in this EIS, with active participation from many state agencies including the State Planning Office, Wyoming Game and Fish Department (WGFD), State Historic Preservation Office (SHPO), Wyoming Department of Environmental Quality (WDEQ), and Wyoming Department of Agriculture (WDA). Regional cooperating agencies include Sweetwater County, the Little Snake River Conservation District, Carbon County, and the Sweetwater County Conservation District.

1.2 OVERVIEW OF THE PROPOSED PROJECT

Based on current knowledge of natural gas reservoir characteristics (geology, flow from existing wells, anticipated recovery rates, and economics), the Operators propose drilling up to 8,950 infill natural gas wells, up to 500 of them coalbed methane (CBM) wells. Historically, over 4,700 oil and gas wells have been drilled in the project area (**Map 1-1**). The locations of the proposed wells have not been identified at this time. This EIS broadly evaluates impacts across the project area; however, specific impacts

¹ The checkerboard refers to the generalized land ownership pattern, characterized by alternating private and public ownership of sections, which continues for 20 miles north and south of the Union Pacific Railroad.

associated with the siting/location of individual project components that are not covered in this document would be evaluated in subsequent tiered NEPA analyses based on site-specific proposals. Upon completion of this project-wide level NEPA analysis, Operators would submit Applications for Permits to Drill (APDs) for the individual or grouped wells over the next 15 years. NEPA analysis for the APDs would be tiered to the analysis and decision described in the ROD associated with this project-wide level EIS.

The Operators propose drilling at well densities of up to one well per 40 acres, equating to 16 wells per 640 acres. Wells may be drilled with a single conventional vertical bore on a single well pad, or with multiple directional bores from a single well pad. The proposed project also includes construction and operation of ancillary facilities such as roads; gas, water, and condensate-gathering pipelines; overhead and buried power lines; and separation, dehydration, metering, and fluid-storage facilities.

The total number of wells drilled would depend largely on variables outside of the Operators' control, such as production success, appropriate engineering technology, economic factors, and lease stipulations and restrictions. The Proposed Action is explained in more detail in **Chapter 2** and in **Appendix B, Operators' Project Description**. **Appendix B** describes the Operators' intentions with regard to project site planning, development, and operations including general plans and descriptions for transportation, reclamation, and hazardous materials management. Alternatives to the Proposed Action, which were developed by the BLM and cooperating agencies, are described in **Chapter 2**. Wyoming BLM Standard Operating Procedures (SOPs) and practices currently used in all surface-disturbing activities throughout the RFO would be employed for this project (see **Appendix C, Best Management Practices and Conditions of Approval**). Additional appendices containing information related to project scoping, operations and procedures, mitigation, and resource-specific issues include:

- Appendix A, Summary of Scoping Comments by Category
- Appendix D, Paleontological Resources Program Guidance: The Potential Fossil Yield Classification (PFYC) System and assessment and mitigation of impacts to paleontological resources
- Appendix E, Reclamation Guidance for Alternatives B, D, and F
- Appendix F, Water Resources Supplemental Data: Tables and maps describing surface water and groundwater data for the CD-C project area
- Appendix G, Energy by Design – Cooperative Mitigation Planning for the CD-C Gas Field
- Appendix H, Occurrence Potential of Wildlife in the CD-C project Area
- Appendix I, Wildlife Inventory, Monitoring, and Protection Plan
- Appendix J, Cultural Resources Management: Identification of cultural resources and jurisdiction on private and split-estate lands
- Appendix K, Hazardous Materials.
- Appendix M, Interim Rollover Objective (IRO) For Alternative C
- Appendix N, Transportation Plan
- Appendix O, Muddy Creek Watershed Monitoring Plan
- Appendix P, Best Management Practices for Fugitive Dust Control
- Appendix Q1, Biological Assessment
- Appendix Q2, Biological Opinion
- Appendix R, Guidance for Best Management Practices Bi-Annual Reports
- Appendix S, Landscape Scale Mitigation

Construction, development, production, and abandonment would comply with all applicable federal, state, and county laws, rules, and regulations (see **Section 1.7**).

1.3 PREVIOUS AND EXISTING OIL AND GAS DEVELOPMENT IN THE AREA

The CD-C project lies in the center of a region that has seen extensive natural gas and oil exploration and development since the 1940's. **Map 1-2** shows the boundaries of the larger and more recent natural gas projects, including the Continental Divide/Wamsutter II and Creston Blue Gap EIS areas.

Four other active projects lie adjacent to, or overlap, the CD-C project area: Atlantic Rim to the east, Desolation Flats to the southwest, Table Rock at the center west, and Luman Rim at the northwest corner. Table Rock and Luman Rim are two relatively small projects approved by the Rock Springs Field Office within the last three years. The larger predecessor and neighboring projects are summarized in **Table 1-2**.

Table 1-2. Oil and gas development in and near the CD-C project area

Project	Date Approved	Drilling (originally anticipated to be completed by)	Project Acres	Project Wells
Creston/Blue Gap	1994	2014	207,746	275
Continental Divide/Wamsutter II	2000	2015	1,061,200	3,000
Atlantic Rim	2006	2026	270,080	2,000
Desolation Flats	2004	2018	233,542	385

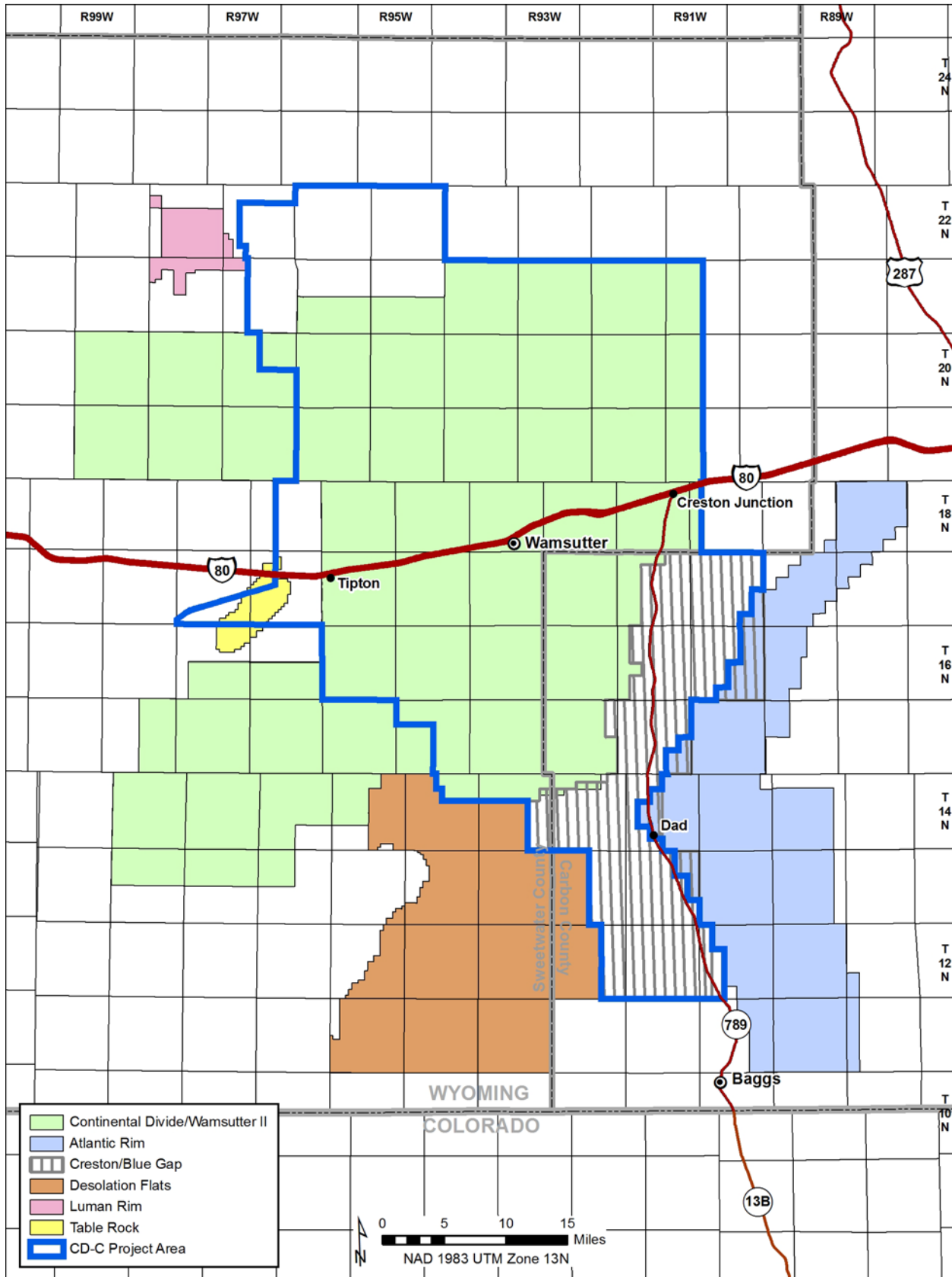
Creston/Blue Gap Natural Gas Project. Natural gas development and production in the southeastern portion of the project area (**Map 1-2**) was analyzed and approved under the Creston/Blue Gap EIS and ROD (BLM 1994). The decision allowed a maximum of 275 wells on 250 locations on a 160-acre spacing pattern. This project is fully constructed and the CD-C Proposed Action includes infill development associated with the same project area.

Continental Divide/Wamsutter II Natural Gas Project (CDWII). The CDWII project comprised approximately 1,061,200 acres—531,400 acres of federal surface, 9,800 acres of state surface, and 520,000 acres of private surface (**Map 1-2**). The Proposed Action analyzed in the EIS included up to 3,000 wells at 3,000 well locations, with approximately 1,500 miles of new roads, 1,500 miles of new pipeline, five compressor stations, one gas-processing facility, 10 evaporation ponds, five disposal wells, and 50 water wells. The ROD (BLM 2000) approved up to 2,130 wells, with the remaining 870 wells (not more than 435 wells or well locations on federal lands and/or federal mineral estate) to be reviewed pending revision of the Rawlins Resource Management Plan (RMP). With the approval of the RMP in 2008, the remaining wells were authorized. This project is fully constructed and the CD-C Proposed Action includes infill development associated with much of the same project area.

Desolation Flats Natural Gas Field Development Project. The EIS analyzed a proposal to conduct exploratory drilling and development of up to 385 wells and associated production and transmission facilities within the area known as Desolation Flats. The project area is approximately 233,542 acres, located within the BLM Rawlins and Rock Springs Field Offices, immediately to the southwest of the CD-C project area (**Map 1-2**). The 2004 ROD (BLM 2004a) approved 385 wells at 361 locations. The project is still underway.

Atlantic Rim Natural Gas Development Project. This project is located on the southeastern boundary of the CD-C project area, encompassing approximately 270,080 acres (**Map 1-2**). The 2007 ROD (BLM 2007h) called for drilling and development of approximately 1,800 coalbed methane (CBM) wells and 200 conventional wells on state, private, and federal lands with a density of eight wells per 640 acres. Drilling is expected to occur for approximately 20 years. New wells are expected to have an operational life of 30 to 40 years. Associated facilities include access roads, gas and water collection pipelines, compressor stations, and electrical/power system development. The project is still underway.

CHAPTER 1— PURPOSE AND NEED



Map 1-2. Oil and gas development in and near the CD-C project area

No warranty is made by the BLM for use of the data for purposes not intended by the BLM.

1.4 PURPOSE AND NEED FOR THE ACTION

The need for a BLM action is to respond to this proposal and to evaluate action on future plans and applications related to this proposal. The Federal Land Policy and Management Act (FLPMA) of 1976 (Public Law 94-579, 43 United States Code [USC] 1701 et seq.) recognizes oil and gas development as one of the “principal” uses of the public lands. Federal mineral leasing policies (Mineral Leasing Act of 1920, 30 USC 188 et seq.) and the regulations by which they are enforced recognize the statutory right of lease holders to develop federal mineral resources to meet continuing national needs and economic demands. The purpose of this EIS is to facilitate the BLM decision-making process of whether to approve, approve with modifications, or disapprove the proposed project or project components based on an evaluation of the expected impacts. Through this process, the BLM’s purpose is to minimize or avoid environmental impacts to the extent possible while allowing the Proponents to exercise their valid lease rights.

The need for the proposed natural gas project is to authorize development of natural gas from federal mineral estate within the CD-C project area, in order to allow for production of domestic energy to satisfy energy demands. This action would assist the BLM in meeting the management objectives in the National Energy Policy Act of 2005 and the National Energy Policy (President’s Plan). Under the BLM’s authority to issue mineral leases and in compliance with the Rawlins RMP EIS/ROD, approved December 24, 2008 (BLM 2008b), the RFO has leased federal minerals within the entire project area.

1.5 DECISIONS TO BE MADE

As a result of the analysis presented in this EIS, the BLM will decide whether, and under what conditions, to allow the development of federal leases for natural gas within the project area. The BLM will determine the Conditions of Approval (COAs), Best Management Practices (BMPs), mitigation, monitoring, and surveying that would be necessary for implementation of the CD-C project. The ROD associated with this EIS will not be the final review or the final approval for individual actions associated with this project. The BLM will review and authorize each component of the project that involves the disturbance of federal lands on a site-specific basis. Surface-disturbing activities are generally authorized by the BLM through the approval of an APD, right-of-way grant, and/or Sundry Notice, with supporting environmental analysis in accordance with the NEPA process. Evaluations at this level include site-specific analyses of proposed construction, including well locations, pipelines, access roads, and other facilities associated with natural gas development. These analyses would be tiered to the broad-scale level analysis included in this EIS and would be completed prior to the authorization of any construction.

1.6 REGULATORY SETTING

This EIS has been developed in accordance with the provisions of the FLPMA, which directs the BLM to manage public lands and their resource values to “best meet the present and future needs of the American people” (Section 103 [43 USC 1702]).

The BLM RFO is the lead agency for this EIS because the federal lands proposed for development are under its jurisdiction. Cooperating agencies listed in **Section 1.9.1** also participated in the preparation of this EIS.

This EIS was prepared in accordance with NEPA and CEQ regulations implementing NEPA (40 CFR 1500–1508), and is in compliance with all applicable regulations and laws subsequently passed, including: USDI regulations for the implementation of NEPA (43 CFR, Part 46) and Departmental Manual 516, National Environmental Policy Act of 1969 (USDI 2005); guidelines listed in the BLM NEPA Handbook H-1790-1 (BLM 2008c); and the Council on Environmental Quality’s Considering Cumulative Effects under NEPA (CEQ 1997).

1.7 AUTHORIZATIONS AND PERMITS

This section describes the general federal, state, and county permitting environment in which the CD-C Natural Gas Development Project will operate. **Table 1-3** contains a full listing of the pertinent federal, state, and county authorizing actions and the agencies that administer them.

Oil and gas leases on federal mineral estate are issued by the BLM consistent with regulations regarding federal oil and gas leasing (43 CFR, Parts 3100 and 3120).

Once a lease is issued, the leaseholder/operator must apply for and receive site-specific authorization(s) prior to drilling within the leasehold area. To meet required environmental obligations, the leaseholder/operator must submit to the BLM an APD and/or its associated application for right-of-way so that the appropriate environmental review may be prepared. Environmental documents such as an Environmental Assessment or Categorical Exclusion are prepared to analyze the site-specific impacts of the proposal. These documents include site-specific COAs for impact minimization, mitigation, and BMPs, among other SOPs.

COAs arise from a variety of controlling authorities such as FLPMA, NEPA, the Endangered Species Act (ESA) and the National Historic Preservation Act (NHPA). The COAs attached to an APD can be general in nature or site-specific, and may vary from one BLM Field Office to another. Typically, a Field Office develops COAs over a number of years of active management of oil and gas development. Often the Field Office RMP provides either a listing of potential COAs or the BMPs that might guide development of site-specific COAs in that area. They can address topics as wide-ranging as protection of wildlife habitat or archeological and paleontological sites, noise reduction, wildfire suppression, or management of invasive species. Included in **Appendix C** is a list of COAs that are typically used in the Rawlins Field Office when approving APDs. The list is often adapted as needed for site-specific use. If specific resource concerns are identified that require additional COAs that are not on the list, additional COAs may be added.

Drilling of federal minerals is subject to the BLM's Onshore Oil and Gas Orders (43 CFR Subpart 3164 – Special Provisions). BLM Onshore Order Nos. 1 and 2 require an applicant to comply with the following conditions:

- Operations must result in the diligent development and efficient recovery of resources;
- All activities must comply with applicable federal, state, and local laws and regulations;
- All activities must include adequate safeguards to protect the environment;
- Disturbed lands must be properly reclaimed; and
- All activities must protect public health and safety.

Onshore Order No. 1 specifically states that lessees and operators are held fully accountable for their contractors' compliance with the requirements of the approved permit and/or plan (Part IV; April 7, 2007).

Pipeline and road rights-of-way on federal lands would be issued under the authority of the Mineral Leasing Act of 1920, as amended, or the FLPMA. Right-of-way grants authorizing construction of ancillary facilities, access roads, and pipelines would grant operators certain rights subject to the terms and conditions incorporated into the grant by the BLM.

Several federal Executive Orders (EOs) can also affect implementation of the proposed project. These EOs, which all government agencies must follow, call for additional consultation, review, or assessment prior to government approval of project activities and apply to wetlands, floodplain management, migratory birds, environmental justice, and invasive species. A Wyoming Statewide Executive Order (#2015-4) establishing the Greater Sage-Grouse Core Area Protection program would also affect implementation of the proposed project. The Executive Order increased habitat protection in Greater Sage-Grouse core population areas on state and private lands as well as federal lands, when the proposed

CHAPTER 1—PURPOSE AND NEED

activities are subject to review or approval by state agencies. (Sections 2.2.7.9 and 3.9.1.1 describe the operation of the EO in more detail.)

The BLM must adhere to specific provisions regarding the drainage of federal minerals from adjacent non-federal lands. These provisions are codified in 43 CFR 3100.2, which states that, upon determination that lands owned by the U.S. are being drained of oil or gas by wells drilled on adjacent lands, the BLM may execute agreements with the owners of adjacent lands whereby the U.S. and its lessees shall be compensated for such drainage. In addition, where lands in any lease are being drained of their oil and gas content by wells either on another federal lease, issued at a lower rate or royalty, or on non-federal lands, the lessee shall both drill and produce all wells necessary to protect the lease lands from drainage.

In lieu of drilling wells to protect the lease from drainage, the lessee may, with the consent of the BLM, pay compensatory royalty. These provisions are also incorporated in the lease terms contained in all federal oil and gas leases (Form 3100-11). A list of the major permits, approvals, and authorized actions necessary to construct, operate, maintain, and abandon project facilities for the Continental Divide-Creston Natural Gas Development Project is provided in **Table 1-3**. Please note that this list is intended to provide an overview of the key regulatory requirements that would govern project implementation. Additional approvals, permits, and authorizing actions may be necessary.

Table 1-3. Federal, state, and county authorizing actions

AGENCY	NATURE OF ACTION
FEDERAL AGENCIES	
Office of the President of the United States	<p>Executive Orders</p> <ul style="list-style-type: none"> • Protection and Enhancement of the Cultural Environment (EO 11593) • Floodplain management (EO 11988) • Protection of wetlands (EO 11990) • Federal Actions to Address environmental justice in Minority Populations and Low-income Populations (EO 12898) • Native American Sacred Sites (EO 13007) • Invasive Species (EO 13112) • Responsibilities of Federal Agencies to Protect Migratory Birds (EO 13186) • Trails for America in the 21st century (EO 13195) • Preserve America (EO 13287) • Facilitation of Hunting Heritage and Wildlife Conservation (EO 13443)
Advisory Council on Historic Preservation	National Historic Preservation Act of 1966, as amended (NHPA) (Regulations at 36 CFR Part 800, Protection of Historic Properties, amended August 5, 2004)
BLM (RFO)	<ul style="list-style-type: none"> • Approves APDs, Sundry Notices and reports on wells, production facilities, disposal of produced water, gas venting or flaring, and well plugging and abandonment for federal wells (MLA of 1920 [30 USC 181 <i>et seq.</i>; 43 CFR 3162, Onshore Oil and Gas Orders No 1 and No 2, Approval of Operations) • Grants rights-of-way to operators for gas-field development actions on BLM surfaces outside of federal lease or unit boundaries, and to third-party applicants (i.e., non-unit operator or non-lease holder) both within and outside of the unit boundary (MLA of 1920, as amended [30 USC 185]; 43 CFR 2880; FLPMA of 1976 [43 USC 1761–177 1]; 43 CFR 2800) • Reviews inventories of, and impacts to, cultural resources and antiquities affected by undertakings and consults with the SHPO and the Advisory Council on Historic Preservation as required by Wyoming State Protocol (Antiquities Act of 1906 [16 USC Section 431–433]; Archaeological Resources Protection Act of 1979 [16 USC Section 470aa–470ll]; Preservation of American Antiquities [43 CFR 3]; National Historic Preservation Act [NHPA]; Section 106 [36 CFR 60.4])

CHAPTER 1—PURPOSE AND NEED

Table 1-3. Federal, state, and county authorizing actions, *continued*

AGENCY	NATURE OF ACTION
BLM (RFO)	<ul style="list-style-type: none"> Approves disposal of produced water from BLM/federal oil and gas wells (MLA of 1920 [30 USC 181 <i>et seq.</i>]; 43 CFR 3164; Onshore Oil and Gas Order No. 7) Reviews impacts on federally listed or proposed-for-listing threatened or endangered species of fish, wildlife, and plants, and consults with U.S. Fish and Wildlife Service (Endangered Species Act of 1973, as amended [ESA] <i>et seq.</i> [16 USC 1531]) Grants Unit Area Agreements and subsequent actions relative to the unit
BLM Wyoming (Reservoir Management Group)	Administers drainage protection and protection of correlative rights on federal mineral estate
U.S. Army Corps of Engineers	Issues permit(s) for placement of dredged or fill material in, or excavation of, waters of the U.S. and their adjacent wetlands (Section 404 of the Clean Water Act of 1972 [40 CFR 122-123, 230])
U.S. Department of Energy	Regulates interstate pipeline product transportation (various sections of the USC and CFR)
U.S. Environmental Protection Agency	<ul style="list-style-type: none"> Requires Spill Prevention, Control, and Countermeasure Plans (40 CFR 112) Regulates hazardous wastes treatment, storage, and/or disposal (Resource Conservation and Recovery Act, 42 USC 6901)
U.S. Fish and Wildlife Service	Reviews impacts on federally listed or proposed-for-listing threatened or endangered species of fish, wildlife, and plants; coordinates impacts to migratory birds (Fish and Wildlife Coordination Act, 16 USC Sec. 661 <i>et seq.</i> ; Section 7 of the ESA of 1973, as amended [16 USC <i>et seq.</i>]; Bald Eagle Protection Act of 1940, as amended [16 USC 668–668dd]); Migratory Bird Treaty Act of 1918
U.S. Department of Transportation	Controls interstate pipeline maintenance and operation (49CFR 191 and 192)
STATE OF WYOMING	
Office of the Governor	Statewide Executive Order #2015-4 (SWEO 2016), Greater Sage-grouse Core Area Protection program.
Wyoming Department of Agriculture	Regulates weed and pest control by county agency (Wyoming Weed and Pest Control Act, Wyoming Statute WS 11-5-102)
Wyoming Board of Land Commissioners/ Land and Investment Office	Approves oil and gas leases, rights-of-way for long-term or permanent off-lease/off-unit roads and pipelines, temporary use permits, and developments on state lands (WS 37-1-101 <i>et seq.</i>)
Wyoming Department of Environmental Quality (WDEQ), Water Quality Division	<ul style="list-style-type: none"> Issues Wyoming Pollutant Discharge Elimination System (WYPDES) permits for discharging wastewater and stormwater runoff (WDEQ Rules and Regulations, Chapter 18; Wyoming Environmental Quality Act, WS 35-11-301 through 35-11-311; Section 405 of the Clean Water Act, 40 CFR 122-124) Provides administrative approval for discharge of hydrostatic test water (Wyoming Environmental Quality Act, WS 35-11-301 through 35-11-311) Oversees conformance with all surface water standards, permits to construct, and permits to operate Issues permits to construct settling ponds and wastewater systems including groundwater injection and disposal wells for non-oil and gas uses Regulates off-lease disposal of drilling fluids from abandoned reserve pits (Wyoming Environmental Quality Act, WS 35-11-301 through 35-11-311) Grants small wastewater system permits, where applicable Requires reporting of spills or releases of oil, hazardous substances and produced water

CHAPTER 1—PURPOSE AND NEED

Table 1-3. Federal, state, and county authorizing actions, *continued*

AGENCY	NATURE OF ACTION
WDEQ, Air Quality Division	Issues New Source Review (NSR) permits to construct and operate all pollution emissions sources including compressor engines and portable diesel and gas generators (Clean Air Act; Wyoming Environmental Quality Act, WS 35-11-201 through 35-11-212)
WDEQ, Solid Waste Division	Issues construction fill permits and industrial waste facility permits for solid waste disposal during construction and operations (Wyoming Environmental Quality Act, WS 35-11-501 through 35-11-520)
Wyoming Department of Transportation (WYDOT)	Issues permits for oversize, overlength, and overweight loads (Chapters 17 and 20 of the Wyoming Highway Department Rules and Regulations)
Wyoming Oil and Gas Conservation Commission (WOGCC)	<ul style="list-style-type: none"> • Issues permits to use earthen pit (reserve pits) on nonfederal lands (WOGCC Regulations, Section III; Rule 305) • Authorizes flaring or venting of gas (WOGCC Regulations, Section III; Rule 326) • Issues permits for Class II underground injection wells (WOGCC Regulations, Section III; Rule 346) • Regulates well plugging and abandonment (40 CFR 146; 40 CFR 147.2551) • Issues permit to drill, deepen, or plug back as part of the APD process (WOGCC Regulations, Section III; Rule 315) • Regulates change in depletion plans, Wyoming Oil and Gas Act (WS 30-5-110) • Sets minimum safety standards for oil and gas activities (WOGCC Regulations (Rules 321-A, 327, and 328)
Wyoming State Engineer's Office	<ul style="list-style-type: none"> • Issues permits to appropriate ground and surface water (WS 41-121 through 147, Form UW-5) • Issues temporary water rights for construction permits to appropriate surface water (WS 41-201, Form SW-1)
Wyoming State Historic Preservation Office	Provides consultation concerning inventory of, and impacts to, cultural resources (Section 106 of NHPA and Advisory Council Regulations, 36 CFR 800)
CARBON COUNTY (Applies to non-federal lands)	
	<ul style="list-style-type: none"> • Issues driveway access permits where new roads intersect with county roads • Prepares road use agreements and oversize trip permits when traffic on county roads exceeds established size and weight limits, or where the potential for excessive road damage exists • Requires construction/building permits and conditional use permits to insure all structures and uses Comply with the health safety and welfare standards of the Carbon County Zoning Resolution and goals and policies of the Comprehensive Land Use Plan • Reviews zone change applications to ensure that the proposed land use is consistent with the Carbon County Comprehensive Land Use Plan and zone change criteria listed in the Zoning Resolution • Issues permits to bore or trench county roads or for any crossing or access off a county road
Local Emergency Planning Committee	<ul style="list-style-type: none"> • Requires Hazardous Materials Inventory to ensure the storage of hazardous materials is properly coordinated with the emergency providers (Right to Know Act, EPCRA-42-116-101 et seq)
Weed and Pest District	<ul style="list-style-type: none"> • Provides control of noxious weeds (Wyoming Statute 1105-101 et seq)

CHAPTER 1—PURPOSE AND NEED

Table 1-3. Federal, state, and county authorizing actions, *continued*

AGENCY	NATURE OF ACTION
SWEETWATER COUNTY (Applies to non-federal lands)	
	<ul style="list-style-type: none"> Requires compliance with the International Fire Code (Wyoming State Statute 35-9-121) Issues Construction/Use Permits to insure all structures, including oil and gas wells, and uses comply with the health, safety and welfare standards of the Sweetwater County Development Code. (Wyoming State Statute 18-5-201 et seq.) Issues Conditional Use Permits to insure that uses such as man camps, storage of explosives, storage of radioactive material, temporary construction yards, gravel quarries, wastewater disposal facilities, solid waste disposal facilities, and similar uses comply with the health, safety, and welfare standards of the Sweetwater County Development Code. (Wyoming State Statute 18-5-201 et seq) Approves zone changes as necessary to ensure that the proposed use of the land is coordinated with the Sweetwater County Zoning Map and Land Use Plan. (Wyoming State Statute 18-5-201) Issues County Road permits and licenses including road access and road crossings. (Wyoming State Statute 24-3-101 et seq) Requires coordination with the Sweetwater County Engineering Department regarding the movement of heavy equipment on county roads and the proper use and maintenance of said roads. (Wyoming State Statute 24-3-101 et seq) Coordinates on natural resource issues in the context of the Sweetwater County Conservation District Land and Resource Use Plan and Policy
Sweetwater County Health Department	Issues small wastewater permits (Wyoming State Statute 35-11-101 et seq)
Local Emergency Planning Committee	Requires Hazardous Materials Inventory to ensure the storage of hazardous materials is properly coordinated with the emergency providers (Right to Know Act, EPCRA-42-116-101 et seq)
Weed and Pest District	Provides control of noxious weeds (Wyoming Statute 1105-101 et seq)

1.8 CONFORMANCE WITH THE RAWLINS RESOURCE MANAGEMENT PLAN

The CD-C Proposed Action and Alternatives would be in conformance with the Rawlins RMP EIS/ROD, approved December 24, 2008, available online at <http://www.blm.gov/wy/st/en/programs/Planning/rmps/rawlins.html>. The Rawlins RMP provides guidance for managing the 3.5 million acres of BLM-administered lands and 4.5 million acres of BLM-administered federal mineral estate within the RFO.

Changes to several elements of the Rawlins RMP that guide management of public land resources are under consideration or have recently changed and the changes will affect management of natural gas development within the CD-C project area.

- The RFO's resolution of RMP protest issues required additional planning regarding VRM. On April 11, 2012, the RFO published a Notice of Intent to amend the VRM designations in the RMP. Subsequent to the completion of the 2008 RMP, the RFO updated the visual resource inventory for the planning area and is using this update as a baseline for a revised designation of VRM classes. The effect of this revision on the management of visual resources on public lands in the CD-C project area is described in Section 4.11, **Visual Resources**.
- On September 22, 2015 the BLM published the Record of Decision and Approved Resource Management Plan Amendments for Greater Sage-Grouse (ARMPA) (BLM 2015b). The Wyoming ARMPA applies to the BLM Rawlins, Rock Springs, Kemmerer, Pinedale, Casper, and Newcastle field offices. Separate but associated Land Use Plan Amendments were also published for the Bridger-Teton and Medicine Bow National Forests and the Thunder Basin National Grassland. The

amendments, begun in 2010, aimed to provide consistent habitat management across the range of the Greater Sage-Grouse using management tools that would assure a net conservation gain to the Sage-Grouse within core population areas. Those tools will be applied to oil and gas development in the CD-C project area under the Proposed Action and all alternatives, including the No Action Alternative. **Section 2.2.7.9, Management of Greater Sage Grouse**, provides a summary of the principal management tools from the ARMPA that will be at work in the CD-C project area. The Proposed Action and alternatives have been analyzed with regard to the Wyoming Greater Sage-Grouse EOs and BLM Instruction Memoranda (IM) WO-2012-043 (BLM 2012b) and WY-2012-019 (BLM 2012c). The decisions in the ARMPA have been evaluated against the EO and IMs and it has been found that the analysis is consistent.

Additionally, if certain features of Alternative B were to be included in the CD-C ROD, an amendment to the RMP would be required. Alternative B would expand the avoidance distance for the Muddy Creek watershed and for the Chain Lakes alkaline wetland communities and other playas from 500 feet to 0.25 mile (0.5 mile for perennial sections of Muddy Creek). Because these provisions go beyond the scope of the current RMP, the selection of this alternative would require an RMP amendment to ensure those enhanced protection measures are in conformance with the RFO RMP.

Future actions authorized by the BLM after completion of these amendments would, subject to valid existing rights, conform to the outcomes of these amendments.

Reasonably foreseeable development (RFD) of oil and gas resources for the RFO during the 20-year life of the RMP was estimated at 8,822 wells, resulting in initial surface disturbance of 57,819 acres and residual surface disturbance of 15,472 acres including roads and pipelines. The number of wells drilled and the estimated disturbance acreage were included in the RMP for analysis purposes only, and do not represent a limit on the number of wells that could be drilled, or on the amount of surface disturbance that could result within the resource area. The RFD scenario can be used for the analysis of cumulative impacts, and the RMP contains no decisions that would cap drilling or disturbance.

1.9 PUBLIC PARTICIPATION

1.9.1 Scoping Process

CEQ regulations on implementing NEPA call for an early and open process to determine the scope and significance of issues to be addressed in the EIS (40 CFR Sec. 1501.7). One of the principal goals of the scoping process is to involve the public in the identification of issues, concerns, and potential impacts that may require detailed analysis in the EIS. The formal scoping process for the Continental Divide-Creston EIS began with a Notice of Intent (NOI) to prepare an EIS to analyze additional drilling in the Creston/Blue Gap project area, under the title Creston Blue Gap II Natural Gas Development. The NOI was published in the *Federal Register* on September 8, 2005, inviting the public to comment on a proposal for more extensive development in the Creston/Blue Gap II Natural Gas Development. A public meeting was held in Rawlins on October 13, 2005. During the scoping period on the Creston/Blue Gap II Project, the BLM received 29 individual comment letters, faxes, and e-mails.

When the proposal for infill development in the CDWII project area was received from BP and others, the BLM decided to combine this project with the Creston/Blue Gap II project into a single EIS and initiated a scoping period for the combined projects, under the name Continental Divide-Creston (CD-C) Natural Gas Development Project. The BLM published a NOI for the CD-C EIS on April 3, 2006. A public meeting to discuss the project was held in Rawlins on April 6, 2006. In addition to the 29 comments received during the original scoping period, 21 comment letters, faxes, and e-mails were received for the CD-C EIS. Most of the commenters were the same for both projects.

As part of the scoping process, the BLM invited other federal, state, and local government agencies to participate in the EIS process as cooperating agencies. The RFO hosted an agency briefing in January 2006 to bring the project to the attention of interested federal, state, and local agencies. The State of

Wyoming, Carbon County, the Little Snake River Conservation District, Sweetwater County, the Sweetwater County Conservation District, and the Town of Wamsutter requested and received Cooperating Agency status.

1.9.1.1 Key Issues and Concerns Identified During Scoping

All comments received during the scoping process were reviewed and analyzed. The BLM identified nine key issues based primarily upon the potential quantity, intensity, or duration of an impact, and/or the degree of agency or public interest in the issue. The range of alternatives was developed in response to the potential impacts associated with these key issues. Key issues are summarized below; more detailed information on key issues identified during scoping is presented in **Appendix A, Summary of Scoping Comments by Category**.

- **Air Quality:** Potential project and cumulative impacts on air quality, including Air Quality Related Values (AQRV).
- **Cultural resources:** Potential impacts to historic trails in the project area.
- **Hydrology:** Degradation of water quality by project construction and drilling activities through sedimentation and issues related to disposal of coalbed methane (CBM) produced water.
- **Land Ownership:** Much of the project area is in the checkerboard pattern of land ownership, greatly complicating management of impacts.
- **Non-native, Invasive Plant Species:** The current and projected presence of non-native, invasive species should be evaluated.
- **Range Resources:** Potential loss of livestock forage and project-associated hazardous conditions to area livestock/livestock operations.
- **Special Status Species:** Impacts to the threatened and endangered (T&E) and sensitive wildlife species that could be impacted by the project.
- **Socioeconomics:** Define the impact of the project on traditional socioeconomic indicators and examine the question of technical versus economic recoverability of the resource.
- **Surface disturbance/reclamation:** The extent of existing and proposed surface disturbance and its effects on all resources in the project area.
- **Wildlife Habitat:** The project has the potential to further fragment wildlife habitat and seriously diminish the value of that habitat for many species.

1.9.2 Draft Environmental Impact Statement Comment Period

The Draft CD-C EIS was released in November 2012 and received over 8,000 comments during the 90-day comment period. Comments were received from state, federal, and local agencies, environmental advocacy groups, leaseholders, oil and gas companies, and the general public. The majority of comments were received via email, and were dominated by a form letter created by the American Wild Horse Preservation Campaign summarized in **Appendix L, Response to Comments**. The BLM reviewed the comments, and responded to substantive comments. Substantive comments and responses are in **Appendix L**.

Key issues and concerns identified during the Draft EIS comment period include:

- Questions about the interpretation of the far-field and near-field air quality analyses;
- The difficulty of complying with the requirements of Alternative B;
- The difficulty of achieving the reclamation goals of Alternative C;
- The lack of clear reclamation guidance;
- The need to minimize the impacts on the wildlife found in the project area, especially Special Status Species;

- Unclear requirements for wildlife monitoring and protection;
- Minimizing the effects on surface water quality, especially in the Muddy Creek watershed;
- Assertions that the EIS fails to recognize that some of the alternatives would reduce the project's economic benefits; the alternatives include provisions that are technologically difficult and would increase costs and would therefore reduce the amount of drilling; and
- The lack of an identified preferred alternative.

Substantive comments from the public, the BLM interdisciplinary team, and cooperators were used to develop the BLM's Preferred Alternative (Alternative F) and to modify, clarify, and correct the EIS, as appropriate, including changes to the other alternatives, reclamation guidance, and the Wildlife Inventory, Monitoring, and Protection Plan (**Appendix I**).

1.9.3 Alternative Development

The BLM developed a range of alternatives for the Final EIS based on issues and concerns that were identified through public and internal scoping and comments received on the Draft EIS. The issues identified during scoping and the Draft EIS comment period are summarized in **Sections 1.9.1.1 and 1.9.2**.

Alternative A was developed to illustrate the potential impacts of 8,950 wells being drilled from 8,950 well pads. This alternative does not respond directly to concerns identified during scoping that relate to minimizing the surface disturbance of the project, or any other specific sensitive resource concerns. Rather, it was designed to illustrate the maximum disturbance likely in the project area. Because this alternative does not respond to either scoping comments or the purpose and need of the project, it has been eliminated from further analysis and is not included in the Final EIS (see **Section 2.3.3**). Comments from the public indicated concerns regarding the amount of surface disturbance that this alternative would generate, the infeasibility of the Operators being able to drill all wells from vertical wellbores, and impacts to surface water and wildlife resources.

Alternative B was responsive to multiple concerns regarding wildlife, surface water quality, livestock impacts, and surface disturbance. This alternative expanded upon basic protections that are part of the RMP, and included increased protection for identified sensitive resources, such as big game migration corridors and the Muddy Creek watershed. Should this alternative be selected, an RMP amendment would be initiated as the provisions of this alternative go above and beyond what is stipulated in the RMP. This alternative received more comment than any other aspect of the EIS except for the air quality analysis. Most of the comments were directed at the perceived unworkability of the enhanced protections and the disturbance and population thresholds. The version of Alternative B included in the Final EIS has been modified to address many of the concerns noted in the comments on the Draft EIS.

Alternative C was developed in response to concerns regarding surface disturbance acreage and reclamation in the project area. The surface disturbance cap inherent in this alternative was designed to limit the amount of surface disturbance an Operator or lease-holder could have at any one time, and encouraged the use of a rollover credit in order to be able to continue a drilling program. Many comments from the public encouraged the use of a surface disturbance cap; a number of comments questioned whether the BLM would be able to manage the extensive data requirements of the alternative. The alternative was not modified for the final EIS.

Alternative D responded to concerns regarding surface disturbance acreage and was designed to analyze the impacts associated with directional drilling of all wells within a section from a single well pad. Public comments favored this alternative because it would potentially result in the least amount of surface disturbance. Other comments indicated that not all Operators were technologically capable of drilling directionally. The ability of Operators to drill all 16 wells from one well pad was constrained by BLM-implemented wildlife timing stipulations. As a result, the alternative would prevent the drilling of 8,950

CHAPTER 1—PURPOSE AND NEED

wells and the full development of the mineral resources of the project area. The alternative was not modified for the Final EIS.

Alternative F, the Agency Preferred Alternative, was developed in response to comments received on the Draft EIS that indicated the need for overall reduced surface disturbance, protections for the Muddy Creek watershed, clear and measurable reclamation guidance and criteria, and a coordination and consultation group.